

HISTORICAL PERSPECTIVE

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Kraepelin and degeneration theory

Abstract Emil Kraepelin's contribution to the clinical and scientific field of psychiatry is recognized world-wide. In recent years, however, there have been a number of critical remarks on his acceptance of degeneration theory in particular and on his political opinion in general, which was said to have carried "overtones of proto-fascism" by Michael Shepherd [28]. The present paper discusses the theoretical cornerstones of Kraepelinian psychiatry with regard to their relevance for Kraepelin's attitude towards degeneration theory. This theory had gained wide influence not only in scientific, but also in philosophical and political circles in the last decades of the nineteenth century. There is no doubt that Kraepelin, on the one hand, accepted and implemented degeneration theory into the debate on etiology and pathogenesis of mental disorders. On the other hand, it is not appropriate to draw a *simple and direct* line from early versions of degeneration theory to the crimes of psychiatrists and politicians during the rule of national socialism. What we need, is a differentiated view, since this will be the only scientific one. Much research needs to be done here in the future, and such research will surely have a significant impact not only on the historical field, but also on the continuous debate about psychiatry, neuroscience and neurophilosophy.

Key words Kraepelin degeneration theory · history of psychiatry · naturalism · evolutionary biology

Why this issue is important

Emil Kraepelin (1856–1926) is an influential figure in the history of psychiatry and psychiatric concepts. This

fact alone would be reason enough to take a closer look at the development of his thinking during the nearly five decades of his active professional life. However, there is an additional argument to do so: Emil Kraepelin, being so influential, is a good example for the thesis that scientific psychiatry—in the nineteenth, twentieth and twenty-first centuries—was and is highly depending on theoretical concepts. They are changing constantly and therefore have to be reflected upon constantly and thoroughly. If that is not done, the researcher will—unintentionally, in most cases—pave the way for prejudice and dogma. To put it another way: Kraepelin demonstrates the tension, not to say dilemma in which medicine in general and psychiatry in particular are necessarily situated: The tension between "ars medica" on the one hand, being idiographically oriented at subjectivity, qualitative features and the interpersonal relationship between patient and doctor, and the nomothetic approach of natural sciences on the other hand, oriented at objective, quantitative and reproducible data (see Fig. 1).

In 1995, Shepherd used this metaphor of medicine's and psychiatry's ambiguity in a more specific conceptual context, the context of degeneration theory and Emil Kraepelin's attitude towards it. For him, Kraepelin and his thinking about the nature of psychiatry revealed two highly different, even contradictory "faces":

- the sound empirical scientist on the one hand, trying to establish psychiatry as a reliable clinical science far away from metaphysical speculation like in some of the textbooks of romantic psychiatry 100 years earlier
- the ideological and idiosyncratic author on the other hand, uncritically adopting the scientifically weak positions of degeneration theory, of eugenics and even of overt racism [27].

In another paper from the same year, Shepherd commented on Kraepelin's political views as carrying "disturbing overtones of proto-fascism" [28].

The main intention of the present paper is to elucidate this issue not by analysing in detail the development of his clinical nosology with regard to the

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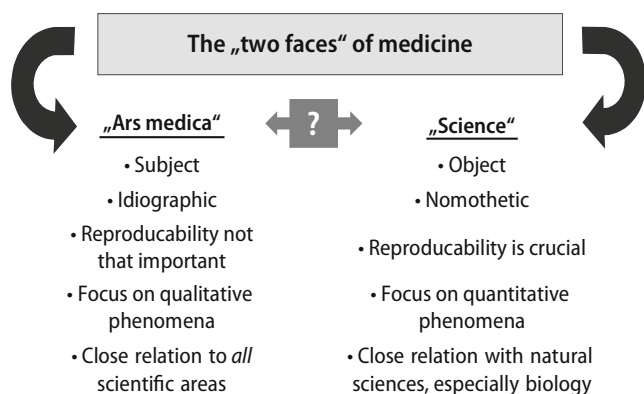


Fig. 1 The “two faces” of medicine

influence of degeneration theory,¹ but on the grounds of a thorough look at the theoretical basis of Kraepelin's psychiatry. The central thesis is that in Kraepelin's view (and, by the way, in many of his contemporaries' views) there was *no* contradiction between science and degeneration theory. Or, to put it the other way round, he regarded degeneration theory as scientifically sound. This, from my perspective, is the most disturbing point.

Kraepelin's psychiatry

■ Starting points and aims

It was indeed Kraepelin's main intention to further establish psychiatry as a medical field with a strong emphasis on clinical science, oriented at the methodological standards of natural sciences. And this, of course, was part of the profound changes psychiatry had undergone during the nineteenth century: Wilhelm Griesinger (1817–1868) had marked a turning point by calling for a clinical and pathophysiological research based on the premise that “mental illness is a somatic illness of the brain”. But Griesinger's theory was by far not as simple as this one statement, which is so often quoted in a misleading context. He held a very differentiated view on the problem of somato- and psychogenesis, although favouring the first in the case of what was later to be called “endogenous psychoses” [8, ²1861], [13].

Karl Ludwig Kahlbaum (1828–1899) continued the traditions of French psychopathology as, for example, represented by Falret and Bayle and developed a clinically orientated research method in the second half of the nineteenth century in Germany. He especially focussed on the course of illness. Griesinger's and Kahlbaum's writings have ever since been regarded as clear refusals of the speculative concepts

¹This would, for example, be one of the highly interesting scientific topics that we need to deal with in the near future, as mentioned at the end of this paper.

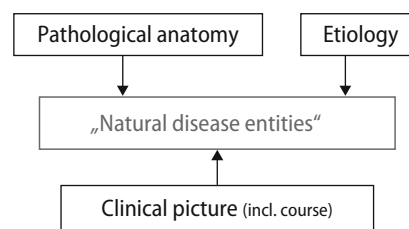


Fig. 2 Basic assumptions of Kraepelinian nosology

rooted in the romantic era of psychiatry, but also of the position of the harsh and unreflected “somaticists”, who were no less dogmatic than some of the “psychicists” [22, 23]. Kahlbaum had clearly recognized the methodological difference between pathological-anatomical and clinical-psychopathological work. With “progressive paralysis of the insane” as an example he explained the way from the “syndrome-course unit” (“Syndrom-Verlaufs-Einheit”) to the—postulated—etiologically based “disease entity” (“Krankheitseinheit”) [14, 15].

As for this central idea of psychiatric “disease entities”, Kraepelin followed Kahlbaum and expanded his position even further: Kraepelin postulated that the essential features of all psychotic disorders will eventually be classified in a “natural”, i.e. primarily biological system, no matter which scientific method is applied: anatomy, etiology and symptomatology, if developed sufficiently, will necessarily converge in the same “natural disease entities” (see Fig. 2).

His nosology showed a remarkable stability over time: From the 2nd to the 9th edition of his textbook, i.e. from 1887 to 1927, Kraepelin did not change the central postulate. This strong hypothesis is, however, limited to a certain extent in three of his theoretical papers, written between 1918 and 1920: “Ends and means of psychiatric research” (1918) (“Ziele und Wege der psychiatrischen Forschung”), “Research in the manifestations of mental illness” (1919) (“Die Erforschung psychischer Krankheitsformen”) and “Clinical manifestations of mental illness” (1920) (“Die Erscheinungsformen des Irreseins”) [16–18]. In these papers Kraepelin took into account contemporary arguments such as Birnbaum's differentiation between pathogenetic and pathoplastic factors in mental illness [1] or Gaupp's hypothesis of the possibility of psychogenic delusions [7]. He now acknowledged the value of defining certain syndromes as a medium level between nosologically unspecific symptoms and specific diseases. But—and this is the essential point—at no time did he abandon his postulate of underlying distinct and natural disease entities [11].

■ Philosophical implications

Emil Kraepelin was not very interested in the philosophical basis and implications of psychiatric theory and practice. His view of what (natural) science was and

what impact it had (or should have) on social and political developments, was highly typical for the way many European natural scientists saw themselves at the turn of the nineteenth/twentieth century [5, 6]. Despite his skeptical attitude towards theoretical considerations in psychiatry, the following major theoretical frameworks can be identified as underlying Kraepelin's concept of psychiatry, seldom explicitly, in most cases very implicitly: Realism, parallelism, experimental approach, naturalism [10].

Realism

In contrast to the philosophical tradition of “German idealism”, e.g. Kant and Fichte, Kraepelin, like most of his contemporaries in the field of natural sciences, believed in an independently existing “real world”, including other people and their healthy or disturbed mental processes. Kraepelin repeatedly pointed out that the psychiatric researcher objectively has to describe what really exists and what “nature presents to him”—the formulations differ, but the essence is a *strictly realistic philosophy*. The consequences for psychiatric nosology are evident: Such realism will lead to the concept of “natural disease entities” which exist completely independently of the researcher. The scientist describes what he *finds*—or, in stronger terms—describes “given things”. His own activity in *constructing* scientific hypotheses or diagnostic entities is underestimated.

Parallelism

Kraepelin advocated psychophysical parallelism. Like Wilhelm Griesinger, whom he admired for his critical attitude towards speculative psychiatric theories, he disapproved of reductionistic materialism, which simply identifies mental events with neurophysiological processes. Kraepelin spoke about two kinds of phenomena, somatic and psychological, which are decidedly different, but closely connected. Kraepelin defended the existence of mental phenomena against all kinds of what he (like Karl Jaspers) called “brain mythologies”. Contrary to his teacher and life-long friend Wilhelm Wundt² (1894), however, Kraepelin, although calling himself a parallelist, did not enter the

detailed philosophical debate on this issue. In particular, he did not differentiate between parallelism and interactionism and did not realize that any strictly defined parallelism makes it more than doubtful that mental life can still be regarded as an independent sphere and not just as having a 1:1-relationship with the somatic level; and this, of course, means (causal) determinism.

As a consequence of his somewhat ambivalent position in the mind-body-debate, there is an implicit tendency towards monism in Kraepelin's writings. But this monistic tendency was definitely not a metaphysical one, but a weak version of methodological monism, insofar he decidedly favoured quantitative methods brought forward by the natural sciences [29].

Experimental approach

For Kraepelin, the psychological experiment should become the central scientific tool, not only for the understanding of disturbed, but also healthy mental processes. Both Wundt and Kraepelin realized the difference between a physical and a psychological experiment, but, for them, the experimental design did not differ significantly in the two areas. Kraepelin considered the experimental approach a kind of guarantee for the scientific status of psychiatric research. Therefore, it is obvious that he rated it higher than mere description of clinical phenomena, although the latter method was regarded to be indispensable, especially if combined with follow-up examinations. Kraepelin developed and maintained a skeptical attitude toward subjective, especially biographically determined aspects of mental disorders, which could not be studied experimentally.

Naturalism

In his early writings—mainly in those on forensic topics—Kraepelin clearly postulated that a priori ideas, freedom of the will, and unchangeable moral values do not exist. Instead, everything is basically a natural, i.e. a biological, phenomenon, though more or less dependent on the time and the specific social and cultural context in which it happens to occur. For Kraepelin, man is *nothing but* a part of nature, and anything man can do is *only* a product of this natural existence. Thus Kraepelin comes close to what is nowadays called evolutionary naturalism, a theory with an increasing influence on psychiatry [2, 12]. Later in his life, he became more cautious concerning these matters, but there is no reason to believe that he substantially changed his mind. This naturalistic, “anti-metaphysical” point of view, of course, made Kraepelin feel sympathetic

²The influence of the founder of experimental psychology, *Wilhelm Wundt* (1832–1920), on Kraepelin can hardly be overestimated. Wundt's aim was to establish psychology as a kind of natural science. He declined the speculative approach of the romantic “philosophy of nature” (e.g. Schelling), but did not agree with materialism or association psychology (e.g. Herbart) either. At least in his earlier writings, Wundt favoured a parallelistic point of view in the mind-body-problem: Experimental research may successfully be used in psychology as in natural sciences, without thereby ignoring the epistemological differences between the mental and the physical [30].

with Darwinistic and biologicistic theories in general, and with degeneration theory in particular. It should be noted, however, that he rejected oversimplifications such as in the monistic theories of Ernst Haeckel (1834–1919), Jakob Moleschott (1822–1893), and Ludwig Büchner (1824–1899).

Summarizing these epistemological considerations, it can be concluded that Kraepelin's psychiatry became so influential, because it offered a pragmatic, clinical and prognosis-oriented nosology, developed by a self-confident author who focussed on rather straight-forward quantitative and naturalistic research methods. He claimed to abandon speculative aspects as far as possible, although he himself did unintentionally "import" a number of implicit theoretical and, in part, highly speculative aspects into psychiatry. What did that mean for his position towards degeneration theory?

Kraepelin and degeneration theory

Degeneration theory had its roots in French psychopathology, especially in the writings of Morel [24, 25] and Magnan [20, 21]. The central idea of this concept was that in "degenerative" illness there is a steady decline in mental functioning and social adaptation from one generation to the other. For example, there might be a intergenerational development from nervous characters to major depressive disorder, to overt psychotic illness and, finally, to severe and chronic cognitive impairment, i.e. dementia. It should be noted, however, that this theory has always been a vague and highly speculative concept, which was brought forward decades before the rediscovery of Mendelian genetics and their application to medicine in general and to psychiatry in particular [3, 4, 9, 19, 26].

Kraepelin and with him most of the contemporary authors of psychiatric textbooks used arguments derived from degeneration theory broadly. He made a special reference to them with regard to manic-depressive illness, paranoia and personality disorders, an interesting issue, which cannot be discussed here in any more detail. But his attitude towards degeneration theory was not straightforward positive, but in a way ambivalent: For example, as mentioned above, due to his naturalistic framework, Kraepelin became an early forerunner of evolutionary biology, which was strongly reactivated by Konrad Lorenz' writings in the twentieth century. And the concept of disease—especially chronic mental disease—fitted very well into this framework insofar these phenomena were regarded as signs of an evolution into the wrong direction, as "degeneration": A "degenerative" process in this sense leaves the usual path of nature, the "genus". So far, Kraepelin was clearly advocating degeneration theory.

However, he stayed sceptical against oversimplistic versions of this concept: For example, although commenting approvingly on the basic ideas of Cesare Lombroso's "criminal anthropology", he did not accept the idea of overt "stigmata degenerationis", by which individual persons could be identified as being "degenerated" simply by their physical appearance [31]. This ambivalent relationship to a central theoretical question can also be seen in Kraepelin's position towards the mind-body-problem, where he pragmatically voted for a parallelistic position on the grounds of a methodological materialism, without discussing the problematic consequences of such a dualistic approach (see above).

Degeneration theory and national socialism: the need for differentiation

The national socialist movement from its beginnings until the end of World War II used central ideas of degeneration theory, social darwinism and eugenics to "scientifically" justify their barbaric world view and—in the last consequence—the killing of people whose lives were defined as "unworthy". Insofar it is of utmost importance that historians of psychiatry follow the lines from early concepts of degeneration theory to the unprecedented cruelties of national socialism. And it is equally important that prominent figures in the history of psychiatry like Emil Kraepelin and many others come under close scrutiny in this context. But one has also to take the following caveats into account:

- The concept of degeneration is highly heterogeneous in itself. Morel, for example, argued from a position of philosophy of moral, whereas Magnan tried to link the idea of degeneration with empirical science. And also in the following decades authors addressed quite different issues when using the term degeneration. A major reason for this is the fact that "degeneration" has never been a clearly defined scientific term.
- There is definitely a line from degeneration theory to national socialism, but—as so often in the history of ideas—it is not at all a simple and direct one. From a political point of view, there have been right wing and left wing supporters of the ideas of degeneration, social Darwinism and eugenics in many countries. But the national socialists in Germany happened to become the only group with the political power to not only *think*, but also *put into action* those ideas on a big scale and until the last and cruel consequences.
- Therefore, it is neither a helpful nor a scientific argument to label any psychiatric author drawing upon degeneration theory as "proto-fascistic". This important and delicate subject calls for a complete and differentiated analysis prior to any judgement.
- The concept of "degeneration" always carried with it an unpleasant ambiguity: Originally intended to be a

scientific term within the realm of biology and natural sciences, it then more and more loaded up with scientific and political prejudices and finally “degenerated” itself into a primitive and extremely *unscientific* pseudo-justification for the extermination programs of the national socialists. It is obvious that this complex process has to be dealt with scientifically, not polemically.

Résumé: lessons to learn for present-day psychiatry

An important task for history of psychiatry is to demonstrate the relevance of “historical” questions and answers for the present situation of psychiatry as a clinical and research field. This can be shown for many crucial psychiatric concepts like *psychosis*, *neurosis*, *psychopathy*, *mental illness*, or *diagnosis*, to mention only a few. But in a way this is also true for the concept of “degeneration”. Some arguments shall underline this position:

- Degeneration theory became an important framework for academic medicine and especially for psychiatry during the last decades of the nineteenth and at the beginning of the twentieth century, although it had always been grounded more on speculative elements than on empirical data or sound scientific reasoning. Degeneration theory thus also influenced the classical nosological concepts like the Kraepelinian one. These again became cornerstones of psychiatric thinking and diagnosing up to the present era of operationalized diagnostic systems like ICD 10 and DSM IV.
- Emil Kraepelin (and most of his contemporaries) broadly used degeneration theory as a theoretical framework for their pathogenetic and nosological assumptions. But although arguments of degeneration theory later were adopted and perverted by the national socialists, this does not justify the conclusion that Kraepelin’s psychiatry had “two faces”, that were neatly separated, the positive scientific one and the negative ideological (or overtly racist) one. For Kraepelin, the question was not “science or degeneration theory?”, since degeneration theory, for him, was a *scientific concept*. Of course, we may (and we should) criticize him for this uncritical adoption, but we should not overlook that his central issue was to further establish psychiatry as a scientific medical specialty with degeneration theory as an important element. Expressed in Shepherd’s metaphor, we may conclude that there was *just one face* of Kraepelin’s psychiatry and of Emil Kraepelin himself, a “face”, however, that should be thoroughly examined by the historians of psychiatry as for its complex role in the development of degeneration theory, social Darwinism and eugenics.
- *Naturalism* was a dominant theoretical framework in the second half of the nineteenth century—and it was

closely interwoven with the idea of degeneration. But naturalism in different modern versions from moderate to stern is also the cornerstone of what was called *biological psychiatry* from about 1960 on and is nowadays continuously merging with the broad term *neuroscience*. And this inner link between Kraepelin’s time and the present day situation, naturalism in all its facets, should be a convincing argument to encourage and promote further research into these theoretical issues.

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